In The Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for producing multimedia data stream ~~production~~, comprising:

a virtual playback unit, simulating the standard multimedia player and providing a playback result;

a multitasking unit, producing and integrating video data packs or audio data packs into the multimedia data stream according to the playback result from the virtual playback unit ~~decoding a multimedia data stream into a plurality of decoded video data packs and a plurality of decoded audio data packs sequentially;~~

~~a multitasking unit, analyzing the decoded video data packs and the decoded audio data packs to decode a source video data stream into a source video data pack or a source audio data stream into a source audio data pack~~; and

a data stream buffer unit, storing the multimedia data stream produced by the multitasking unit ~~source video data pack and the source audio data pack for integration into the multimedia data stream~~.

2. (Currently Amended) The apparatus as claimed in claim 1, wherein the virtual playback unit further comprises: a decoding unit, decoding the multimedia data stream from the data stream buffer unit and retrieving the decoded video data packs and the decoded audio data packs; a video data register unit, registering the decoded video data

packs sequentially; and an audio data register unit, registering the decoded audio data packs sequentially.

3. (Currently Amended) The apparatus as claimed in claim 1, wherein the multitasking unit further comprises: an analysis unit, analyzing the decoded video data packs and the decoded audio data packs from the video data register unit and the audio data register unit to produce an analysis result; a selection unit, outputting source video data stream or the source audio data stream according to the analysis result; and an encoding unit, receiving source video data stream or the source audio data stream output from the selection unit, and decoding thereof into source video data pack or the source audio data pack for integration into the data stream buffer unit.

4. (Currently Amended) The apparatus as claimed in claim 1, wherein the multitasking unit decodes source video data stream into source video data pack if the number of the decoded video data packs are less than the number of the decoded audio data packs in the virtual playback unit.

5. (Currently Amended) The apparatus as claimed in claim 1, wherein the multitasking unit decodes the source audio data stream into the source audio data pack if the number of the ~~there are fewer~~ decoded audio data packs are less than the number of the decoded video data packs in the virtual playback unit.

6. (Original) The apparatus as claimed in claim 1, further comprising a storage unit writing the multimedia data stream of the data stream buffer unit into a storage medium sequentially.

7. (Original) The apparatus as claimed in claim 1, wherein the apparatus is a production software.

8. (Currently Amended) A method for producing multimedia data stream ~~production~~, comprising the steps of:

calculating the playback time of a decoded video data pack~~;~~

and ~~calculating playback time of~~ a decoded audio data pack stored in a video data register unit and in a audio data register unit, respectively;

determining whether the video data register unit and the audio data register unit have overflowed or not;

deciding an analysis result according to the number of stored data packs if the video data register unit and the audio data register unit have not overflowed;

encoding and storing the source video data into the data stream buffer unit if the number of the video data packs are less than the number of the audio data packs and encoding the input source video stream for integration into the data stream buffer unit; and

encoding and storing the source audio data into the data stream buffer unit if the number of the audio data packs are less than the number of the video data packs and encoding the input source audio stream for integration into the data stream buffer unit.

~~decoding a source video data stream into a source video data pack if the playback time of the decoded video data pack is shorter than the playback time of the decoded audio data pack; and decoding a source audio data stream into a source audio data pack if the playback time of the decoded audio data pack is longer than the output time of the decoded video data pack.~~

9. (Original) The method as claimed in claim 8, further comprising integrating the source video data pack and the source audio data pack sequentially into a multimedia data stream.

10. (Original) The method as claimed in claim 8, wherein the decoded video data pack and the decoded audio data pack are decoded from the multimedia data stream.